

MODIS and VIIRS TEB Performance

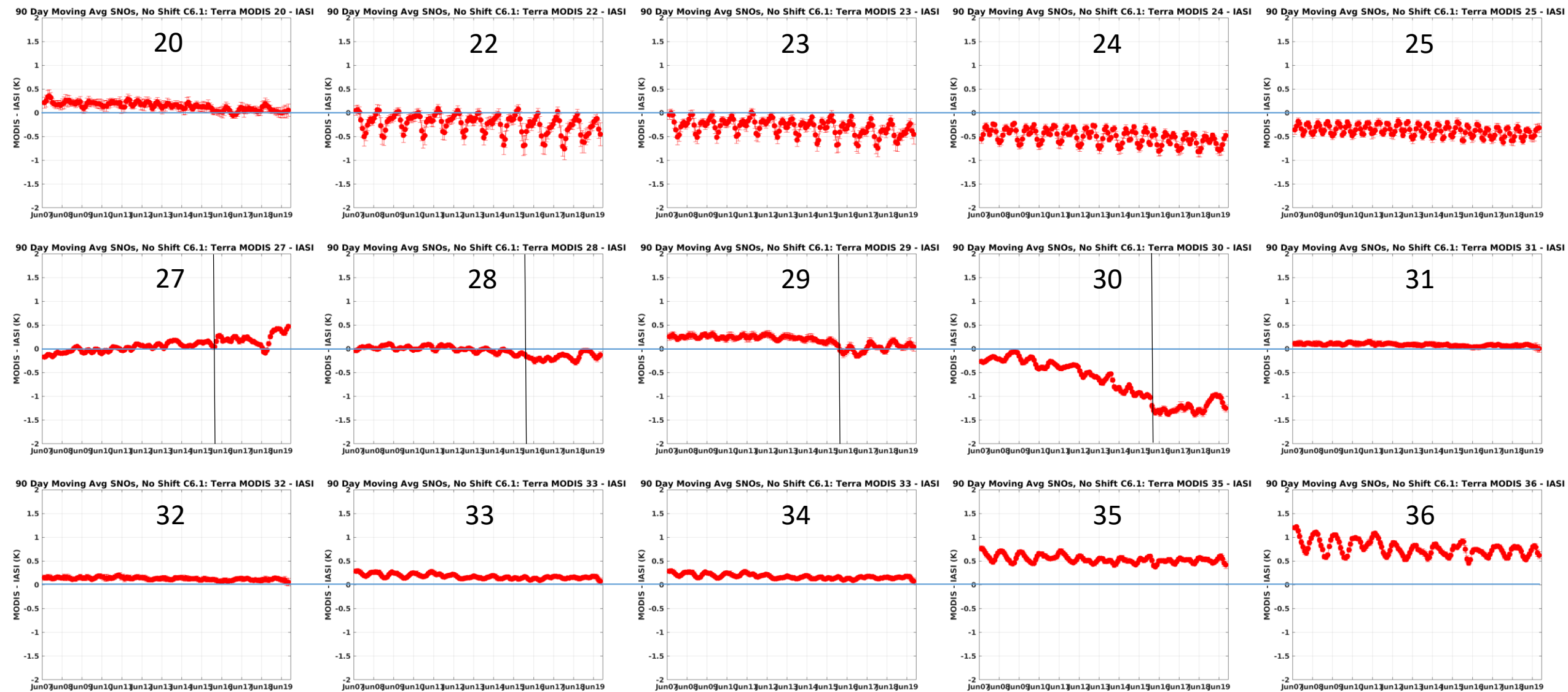
Chris Moeller, Greg Quinn

University of Wisconsin

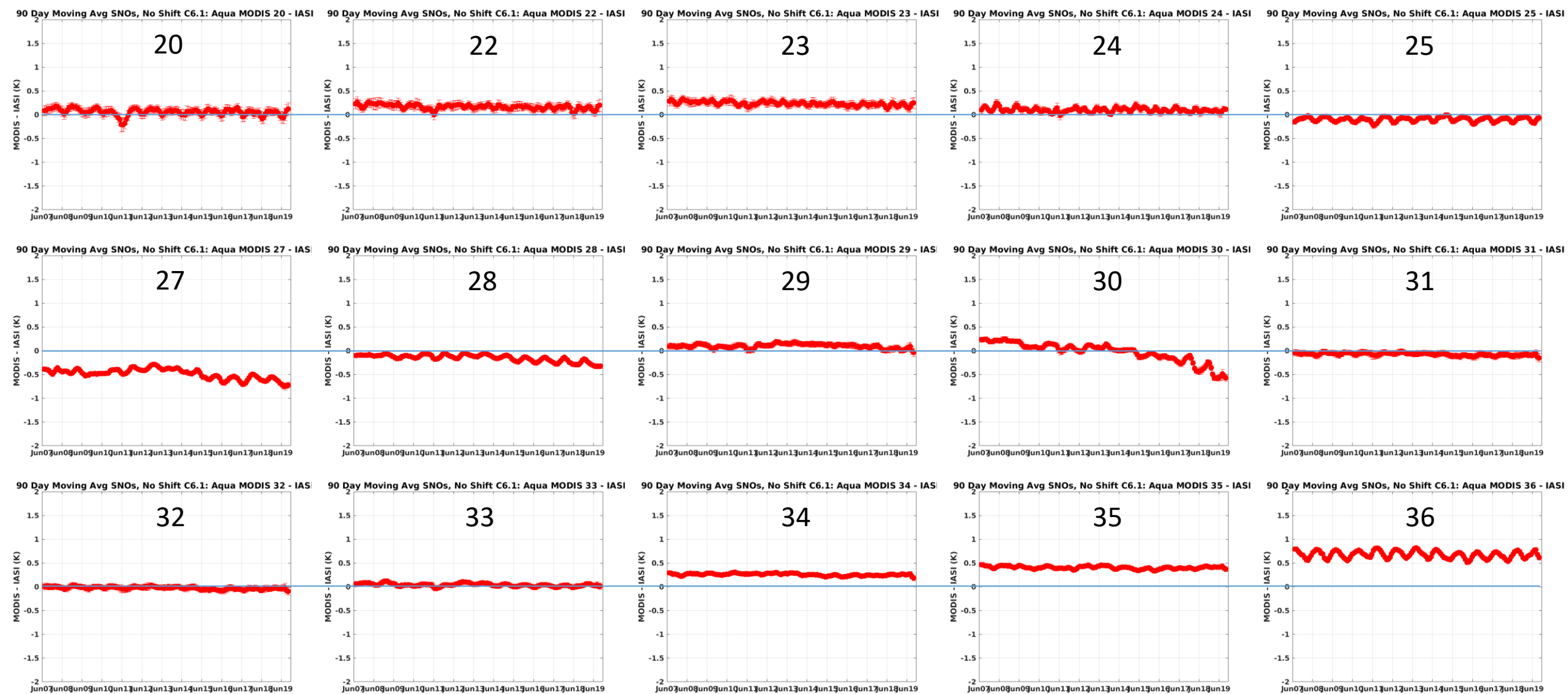
MODIS/VIIRS Calibration Workshop

November 18, 2019

Terra MODIS (C6.1) SNOs with MetOp-A IASI

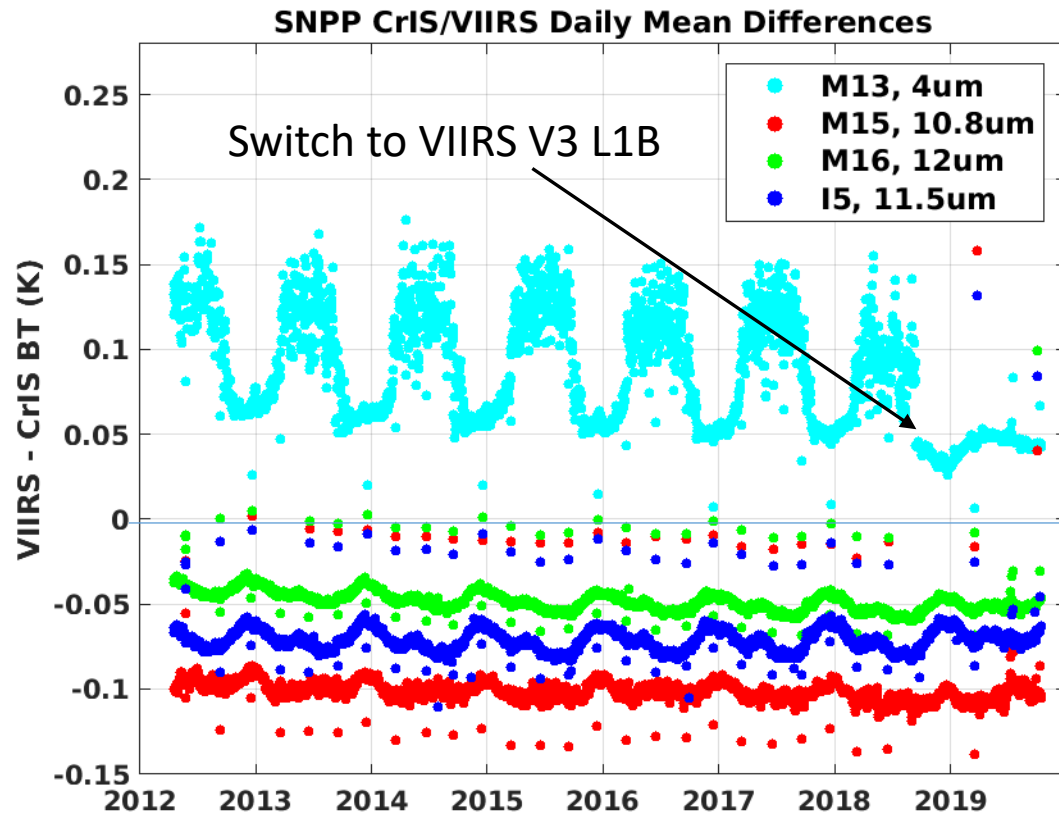


Aqua MODIS (C6.1) SNOs with MetOp-A IASI

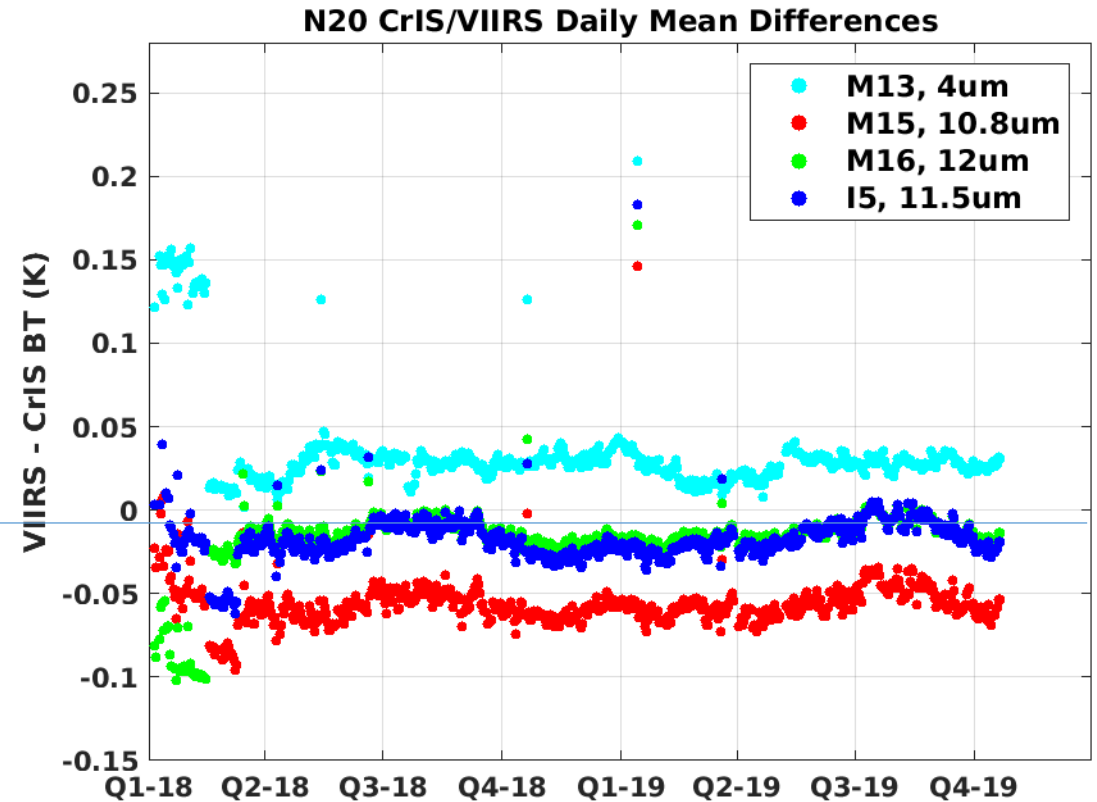


VIIRS – CrIS Comparisons

SNPP

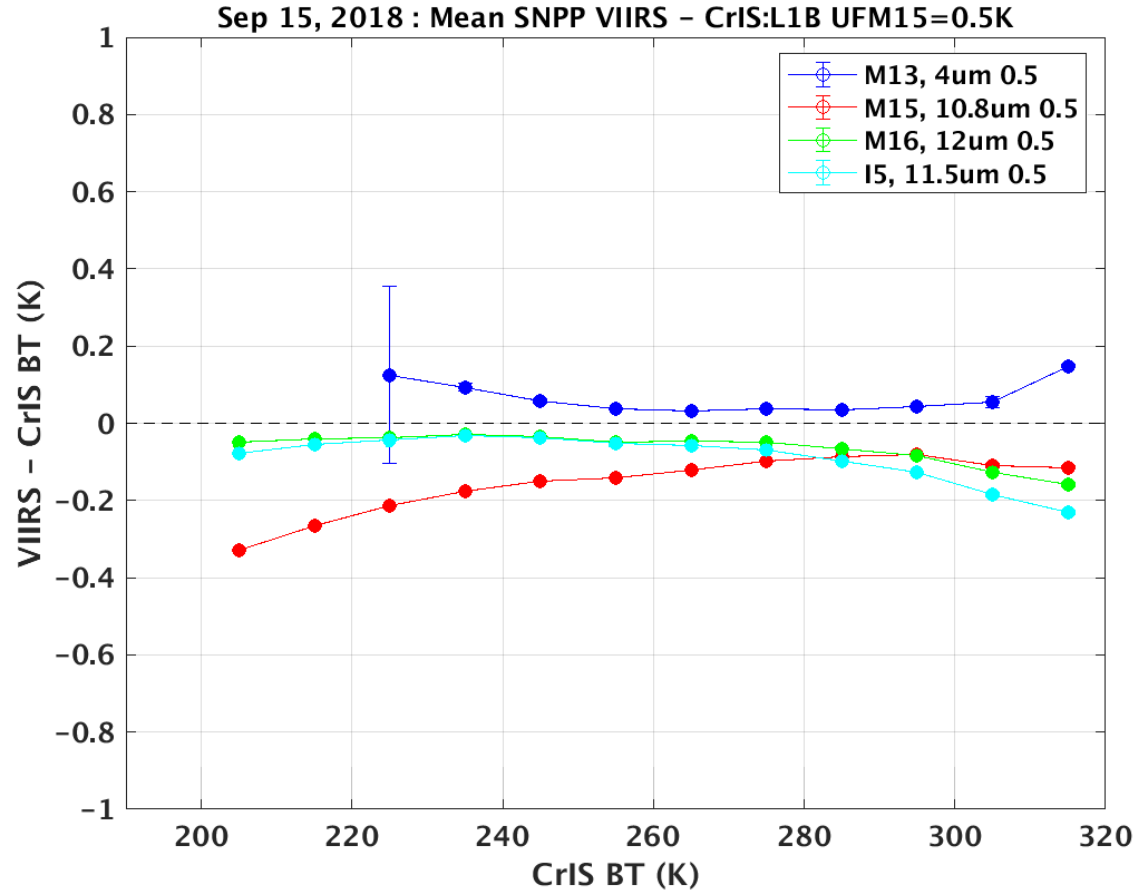


N-20

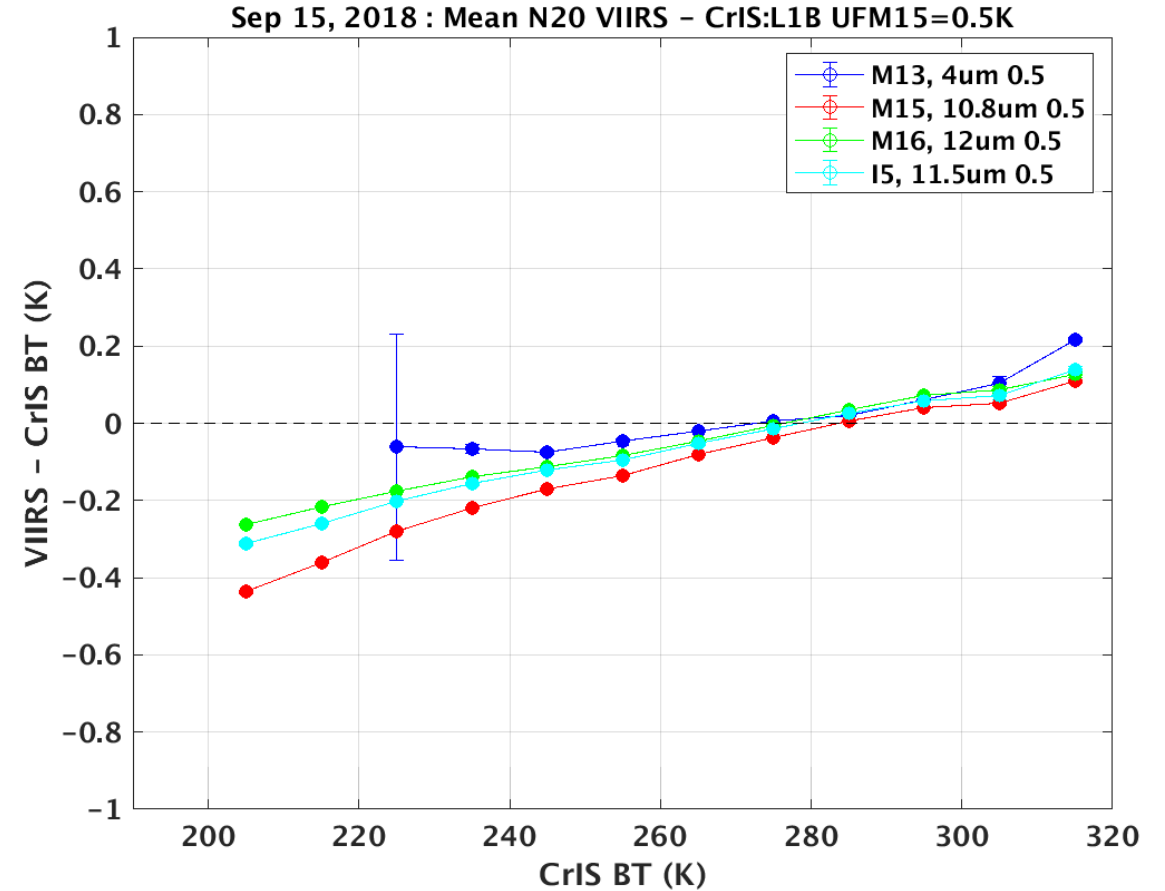


VIIRS – CrIS Comparisons

SNPP



N-20

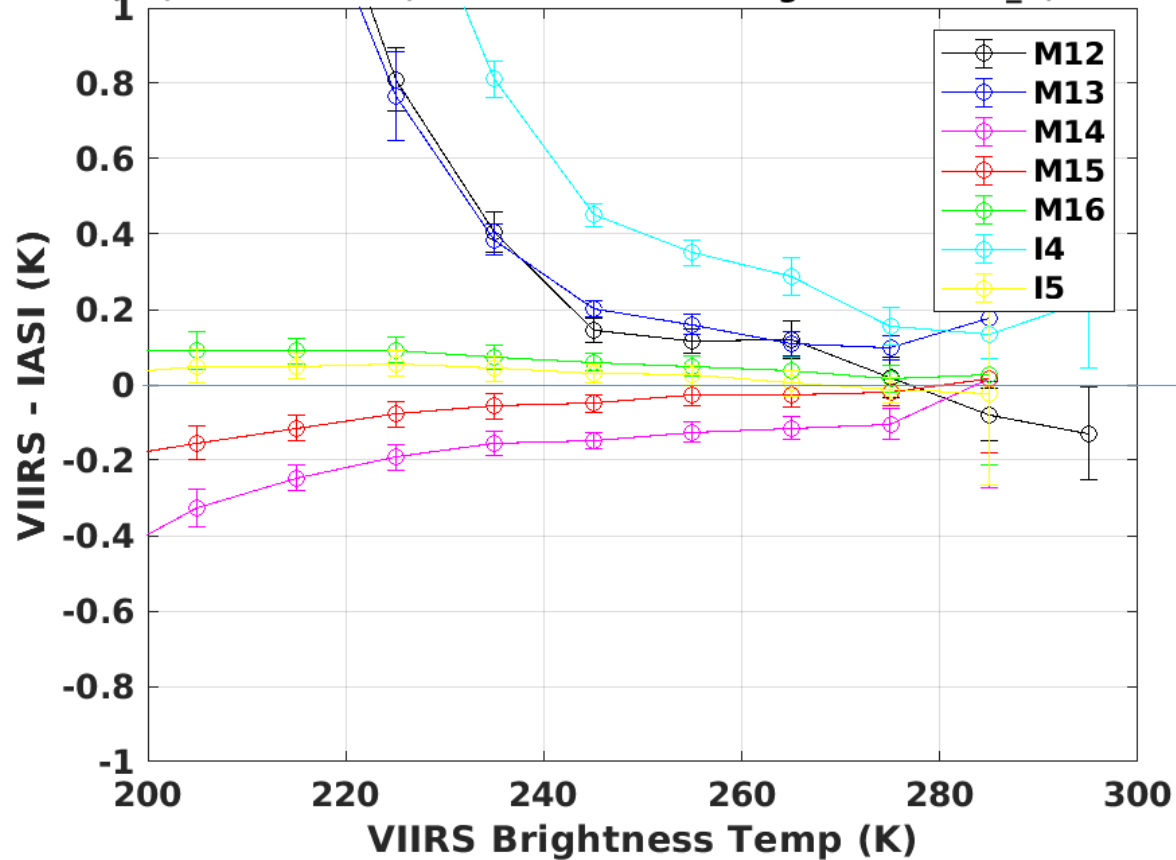


A LUT correction is planned for N-20 L1B processing that will reduce scene temperature dependence.

VIIRS – IASI Comparisons

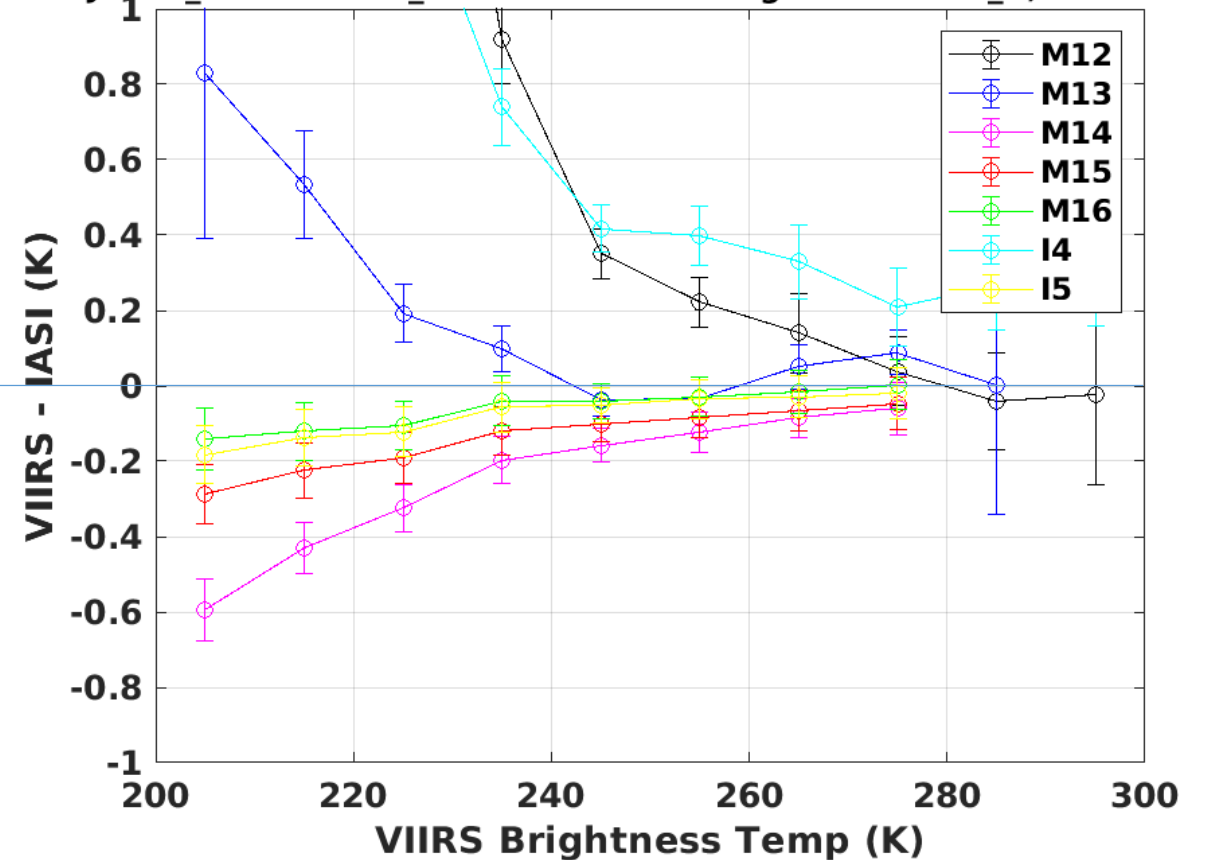
SNPP

Mar28,2012 - Nov05,2019 SNOs: SNPP Avg VIIRS - IASI_A; All Bands



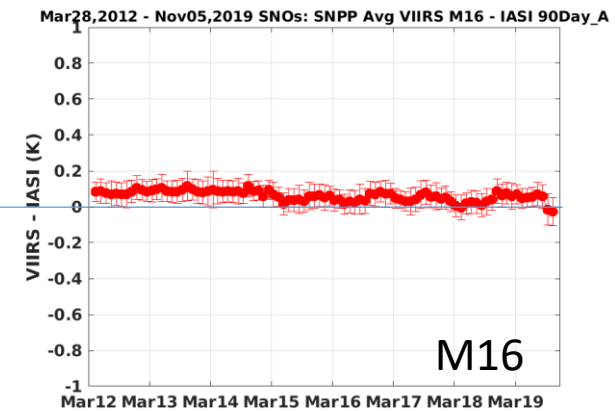
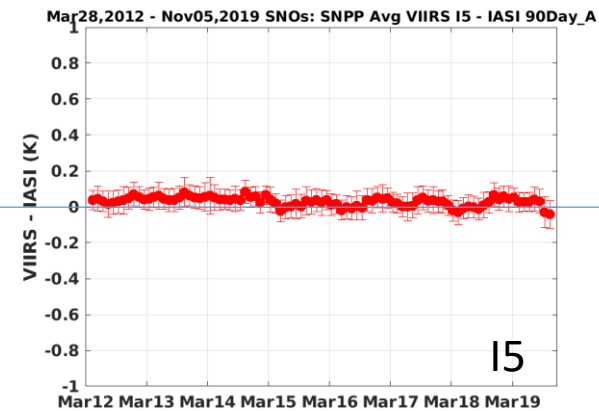
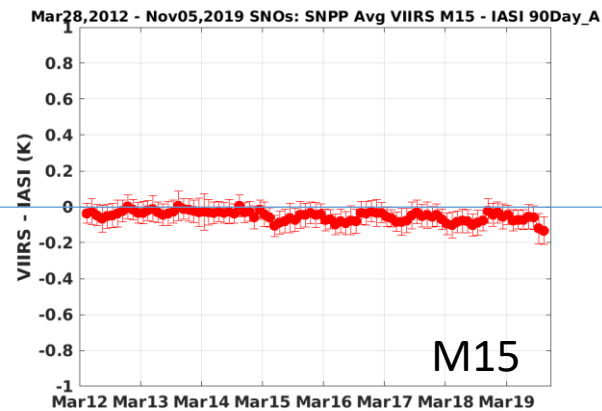
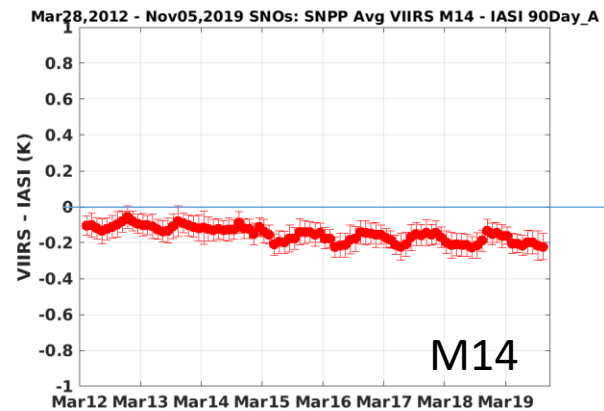
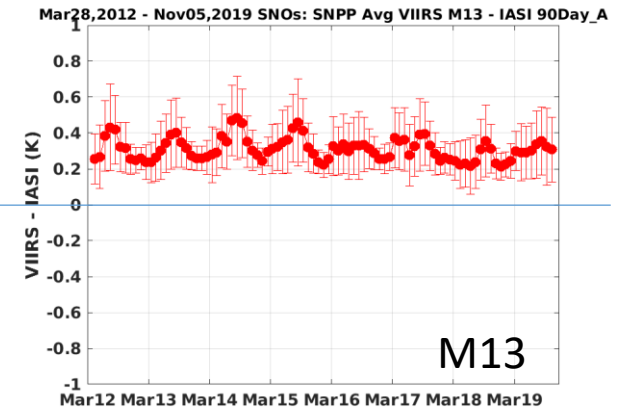
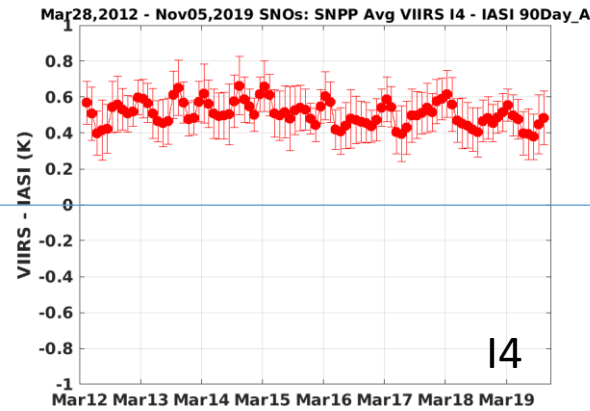
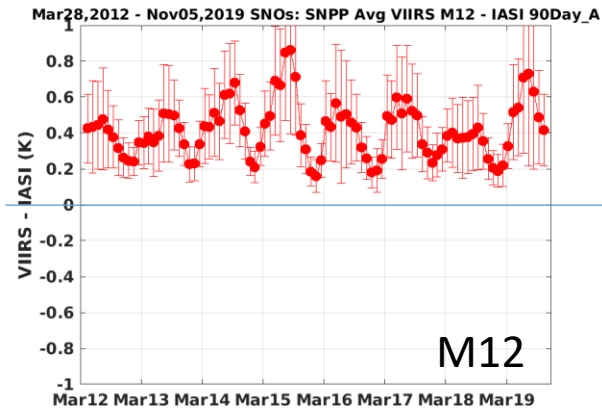
N-20

Jan24_2018-Nov05_2019 SNOs: N20 Avg VIIRS - IASI_A; All Bands

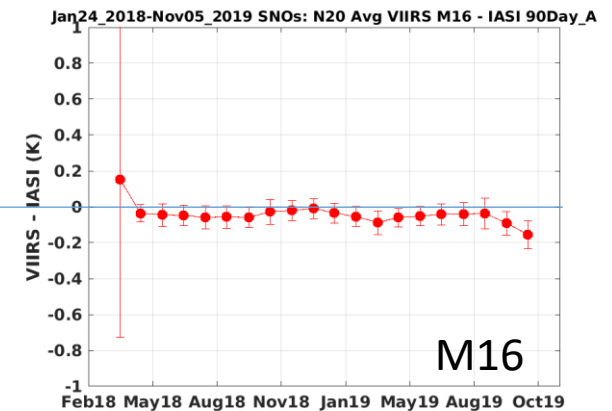
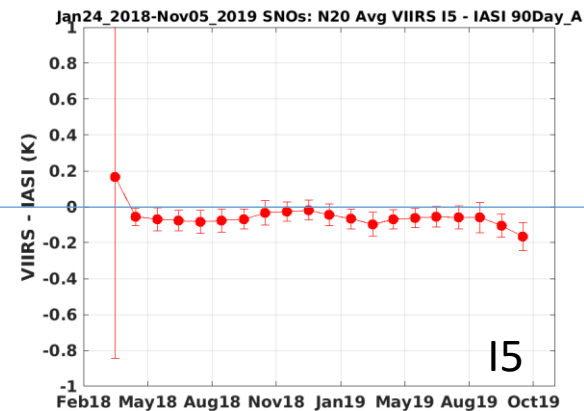
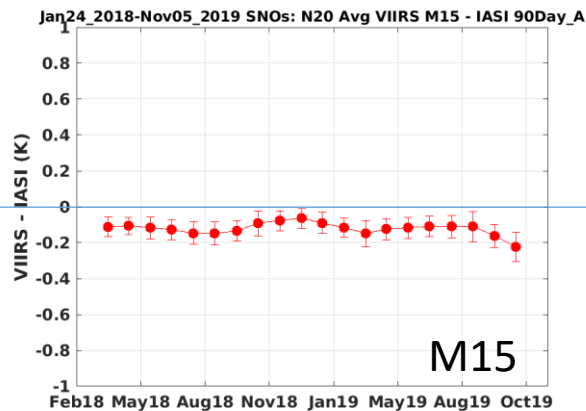
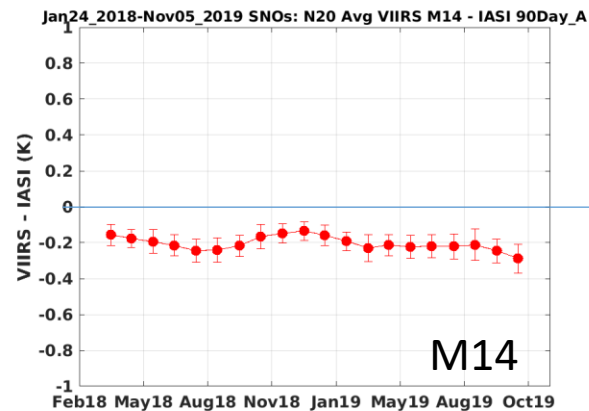
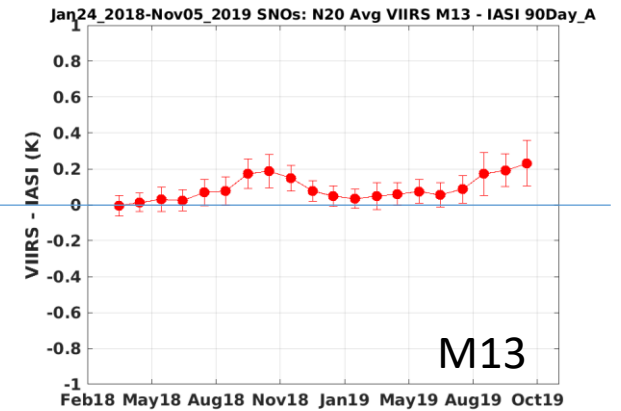
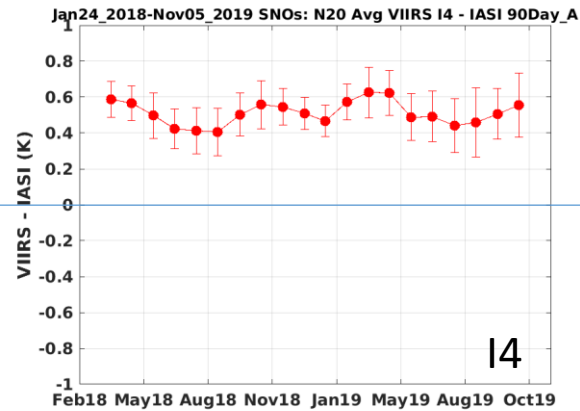
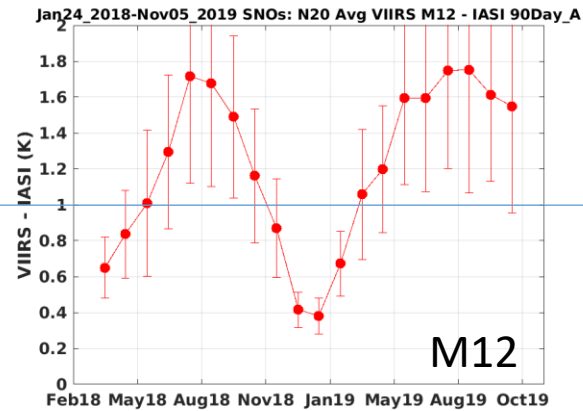


A LUT correction is planned for N-20 L1B processing that will reduce scene temperature dependence.

SNPP VIIRS SNOs with MetOp-A IASI



N-20 VIIRS SNOs with MetOp-A IASI



Summary

- Terra MODIS shows trending in PVLWIR (B27-30) that could be problematical for climate studies. Electronic Xtalk likely remains root cause.
- Aqua MODIS trends more stable but watching PVLWIR.
- SNPP VIIRS trending well.
- Some differences in biases between SNPP and N-20 VIIRS as a function of scene temperature.